```
  4                                                    10    @15    18
  O                              CH==CH            C    11    C    16    C
  ‖                              @7    8        9  C          C          C  19
2 C═══O — CH2 — G1                               14 C          C    C          C  20
  3     5     6                                      C    12    17    C
                                                    13              21
```

```
     @23
      C    24
22   C        C
    C          C  25
27   C        C
      C
     26
```
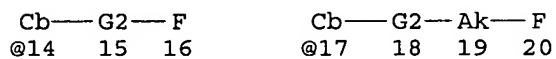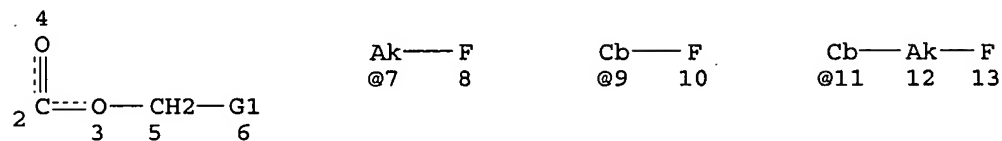
VAR G1=7/15/23
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   9   22
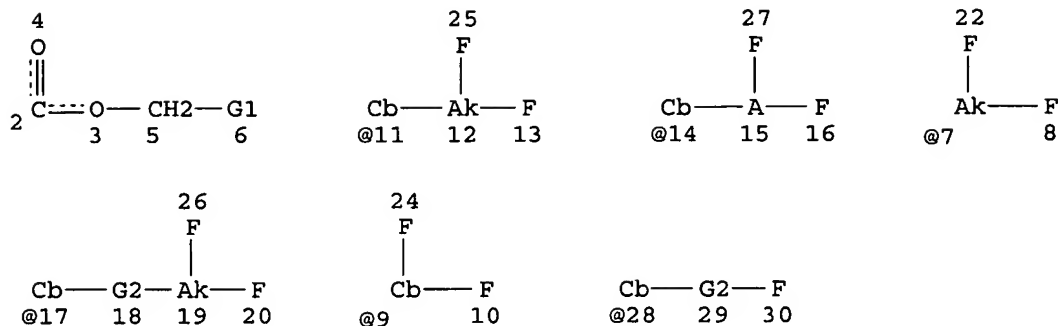NUMBER OF NODES IS   26

STEREO ATTRIBUTES: NONE
L36   SCR 1968
L38   35612 SEA FILE=REGISTRY SSS FUL L35 AND L36
L39   STR

```
  4
  O               Ak — F        Cb — F        Cb — Ak — F
  ‖               @7    8        @9    10      @11   12   13
2 C═══O — CH2 — G1
  3     5     6
```

```
Cb — G2 — F           Cb — G2 — Ak — F
@14   15   16         @17   18   19   20
```

VAR G1=7/9/11/14/17
VAR G2=O/S/N/C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
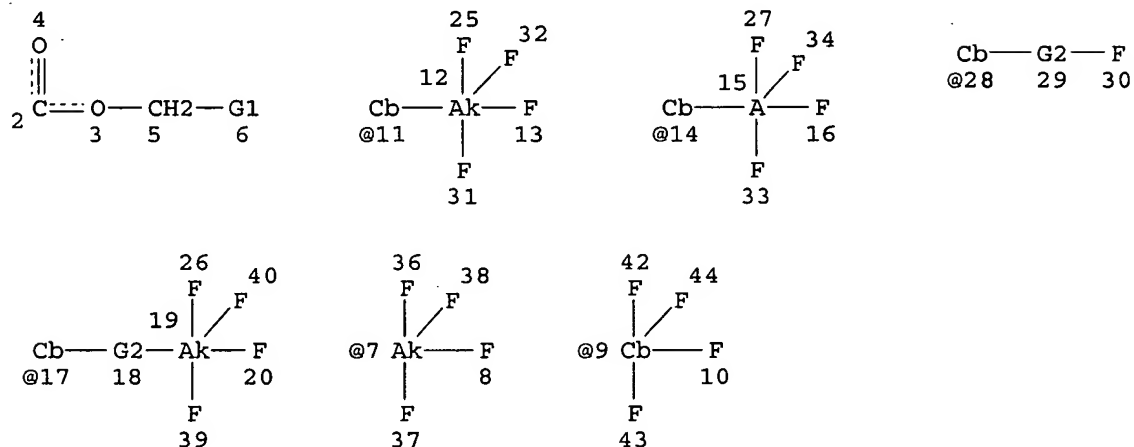RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   19

STEREO ATTRIBUTES: NONE
L41   7096 SEA FILE=REGISTRY SUB=L38 SSS FUL L39
L42   STR

```
   4                    25                  27                  22
   O                    F                   F                   F
   ‖                    |                   |                   |
 2 C═══O ── CH2 ── G1   Cb ── Ak ── F      Cb ── A ── F        Ak ── F
   3    5      6        @11   12   13      @14   15   16       @7    8


        26                  24
        F                   F
        |                   |
 Cb ── G2 ── Ak ── F    Cb ── F          Cb ── G2 ── F
 @17   18   19   20     @9     10        @28   29   30
```

VAR G1=7/9/11/14/17/28
VAR G2=O/S/N/C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE

```
L44          4708 SEA FILE=REGISTRY SUB=L41 SSS FUL L42
L45               STR
```

```
   4                    25    32              27    34
   O                    F    F                F    F
   ‖                12  |  /               15 |  /             Cb ── G2 ── F
 2 C═══O ── CH2 ── G1   Cb ── Ak ── F      Cb ── A ── F        @28   29   30
   3    5      6        @11  |    13       @14  |    16
                            F                  F
                            31                 33


        26    40              36    38            42    44
        F    F                F    F              F    F
     19 |  /                  |  /                |  /
 Cb ── G2 ── Ak ── F      @7 Ak ── F          @9 Cb ── F
 @17   18   |    20          |    8              |    10
           F                F                   F
           39               37                  43
```

VAR G1=7/9/11/14/17/28
VAR G2=O/S/N/C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE

```
L47          3542 SEA FILE=REGISTRY SUB=L44 SSS FUL L45
L48          3179 SEA FILE=REGISTRY ABB=ON  PLU=ON  L47 NOT (PMS OR MXS)/CI
L49            72 SEA FILE=REGISTRY ABB=ON  PLU=ON  L48 AND NC4/ES
L50             6 SEA FILE=REGISTRY ABB=ON  PLU=ON  L49 AND (C18H14F9NO5 OR
                    C20H14F13NO5 OR C23H14F19NO5 OR C22H14F17NO5 OR C29H18F17NO5
                    OR C13H10F3NO5)
```
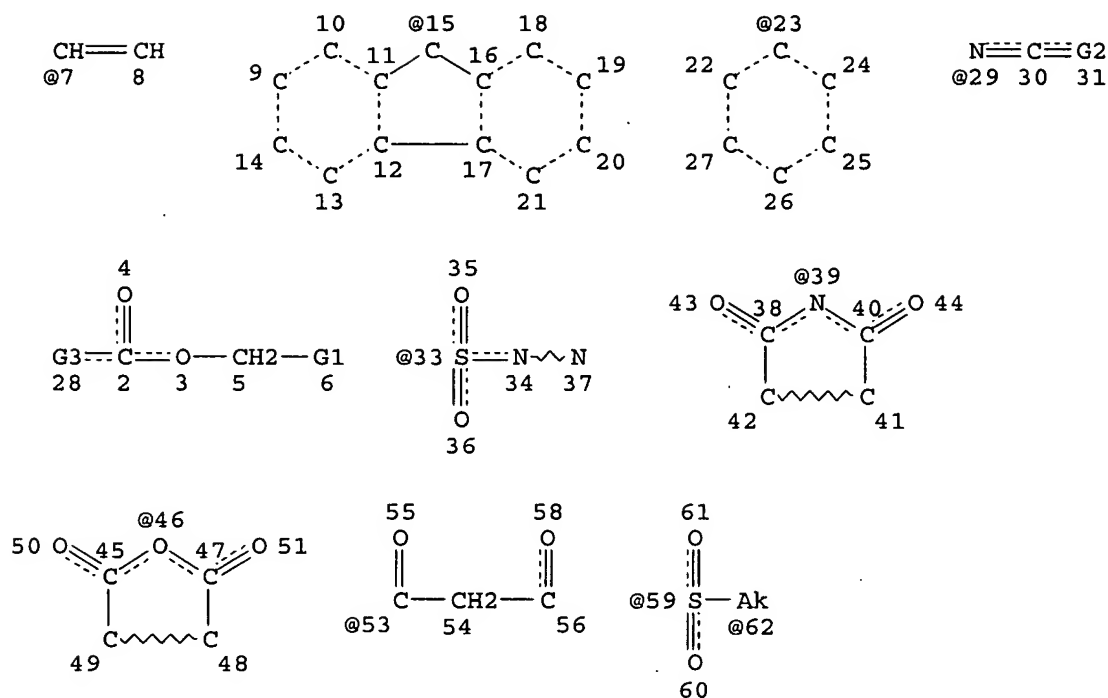
L54   STR


```
VAR G1=7/15/23
VAR G2=O/S
VAR G3=X/59/62/33/29/53/39/46
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC    9   22   38   45
NUMBER OF NODES IS   58

STEREO ATTRIBUTES: NONE
L57          130 SEA FILE=REGISTRY SUB=L38 SSS FUL L54
L58           23 SEA FILE=REGISTRY ABB=ON   PLU=ON   L57 AND L41
L59            3 SEA FILE=REGISTRY ABB=ON   PLU=ON   L58 AND (C19H12CLF17O2 OR
                 C18H8CLF17O2 OR C18H10CLF17O2)
L60            9 SEA FILE=REGISTRY ABB=ON   PLU=ON   (L50 OR L59)


=> d his 160-

     (FILE 'REGISTRY' ENTERED AT 07:13:23 ON 12 APR 2005)
L60            9 S L50,L59
                 SAV TEMP L60 SHIAO617A5/A
L61            7 S L60 NOT L26


     FILE 'HCAOLD' ENTERED AT 07:55:25 ON 12 APR 2005
L62            0 S L61


     FILE 'HCAPLUS' ENTERED AT 07:55:28 ON 12 APR 2005
L63            6 S L61
L64            1 S L63 AND L1-L12
L65            4 S L63 AND (PD<=20020711 OR PRD<=20020711 OR AD<=20020711)
L66            5 S L64,L65
L67            1 S L63 NOT L66
```
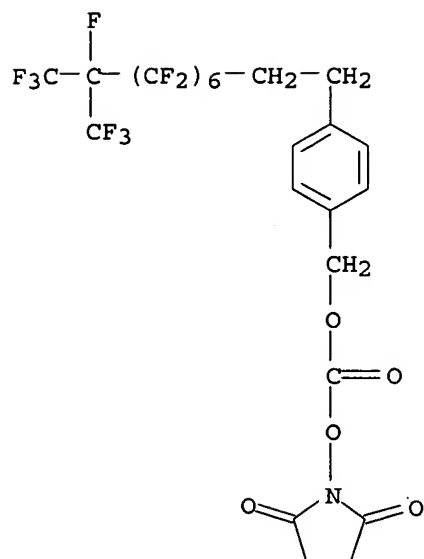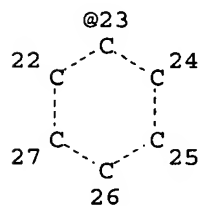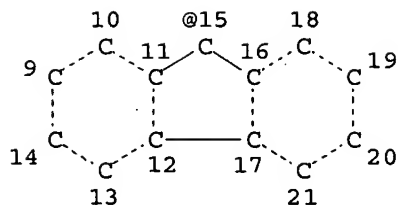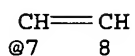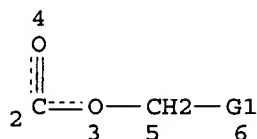
$$F_3C-\underset{\underset{CF_3}{|}}{\overset{\overset{F}{|}}{C}}-(CF_2)_6-CH_2-CH_2$$

(benzyl carbonate N-succinimide structure)

```
=> => d sta que 180
L35              STR
```

```
    4                              10   @15   18
    O             CH==CH        9  C   11  C  16  C    19
    ||            @7     8         C   C       C    C
  2 C---O—CH2—G1                   14 C           C  20
    3    5    6                       C   12  17  C
                                      13         21
```

```
    @23
    C
22 C   24
 C       C
27 C     C 25
    C
    26
```

```
VAR G1=7/15/23
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC    9   22
NUMBER OF NODES IS   26

STEREO ATTRIBUTES: NONE
L36              SCR 1968
L38        35612 SEA FILE=REGISTRY SSS FUL L35 AND L36
L77    .         STR
```

```
   4
   O
   ‖
 2 C═══O── CH2─G1
   3    5    6
```
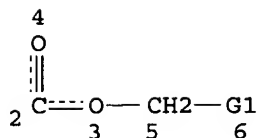
```
 Cb── Si── F        Cb── Si── Ak── F
 @14  15  16        @17  18  19  20
```

VAR G1=14/17
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE
L78   12 SEA FILE=REGISTRY SUB=L38 SSS FUL L77
L79   3 SEA FILE=REGISTRY ABB=ON PLU=ON L78 AND 1/CL
L80   1 SEA FILE=REGISTRY ABB=ON PLU=ON L79 AND C32H18CLF3O2SI

=> d his 180-

     (FILE 'REGISTRY' ENTERED AT 07:57:42 ON 12 APR 2005)
L80   1 S L79 AND C32H18CLF3O2SI

     FILE 'HCAPLUS' ENTERED AT 08:08:54 ON 12 APR 2005
L81   2 S L80

=> d all hitstr tot

L81 ANSWER 1 OF 2 HCAPLUS   COPYRIGHT 2005 ACS on STN
AN   2004:57304   HCAPLUS
DN   140:127844
ED   Entered STN: 23 Jan 2004
TI   Preparation of fluorinated silica gel support material for palladium
     catalyzed coupling reactions
IN   Bannwarth, Willi; Tzschucke, Carl Christoph; Glatz, Heiko; Schwinn,
     Dominik
PA   Albert-Ludwigs-Universitaet Freiburg, Germany
SO   Ger., 19 pp.
     CODEN: GWXXAW
DT   Patent
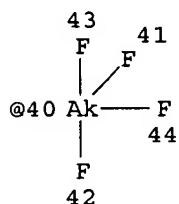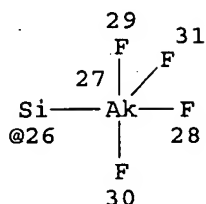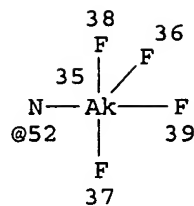LA   German
IC   ICM C07F007-08
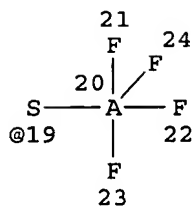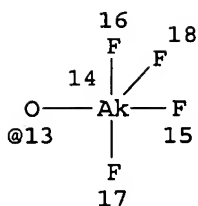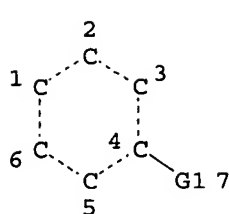   ICS C07B037-00; C07B061-00
CC   21-2 (General Organic Chemistry)
     Section cross-reference(s): 35, 66
FAN.CNT 1
        PATENT NO.   KIND   DATE   APPLICATION NO.   DATE
        --------------   ----   --------   -------------------- --------
PI   DE 10235225   B3   20040122   DE 2002-10235225   20020801
     WO 2004013068   A1   20040212   WO 2003-EP7592   20030714
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
```

Structure 1 (benzene ring):
```
        2
        C.
 1   .·'   '·. 3
  C   C
  | |
  | |
 6 C.   .C 4
      '·.·'   \
        C   G1 7
        5
```

Structure 14:
```
        16
        F   18
   14 | /F
 O——————Ak————F
 @13 | 15
        F
        17
```

Structure 20:
```
        21
        F   24
   20 | /F
 S——————A————F
 @19 | 22
        F
        23
```

Structure 35:
```
        38
        F   36
   35 | /F
 N——————Ak————F
 @52 | 39
        F
        37
```

Structure 27:
```
        29
        F   31
   27 | /F
 Si——————Ak————F
 @26 | 28
        F
        30
```

Structure 40:
```
        43
        F   41
        | /F
 @40 Ak————————F
        | 44
        F
        42
```

VAR G1=13/19/52/26/40
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC    4
NUMBER OF NODES IS   36

STEREO ATTRIBUTES: NONE
L70        2012368 SEA FILE=REGISTRY ABB=ON   PLU=ON   46.150.18/RID AND F/ELS
L72                SCR 1044
L74          37805 SEA FILE=REGISTRY SUB=L70 SSS FUL L68 AND L36 AND L72
L88                STR

Structure 12:
```
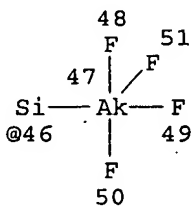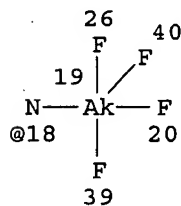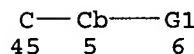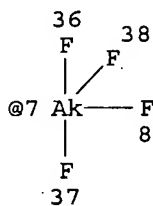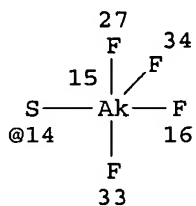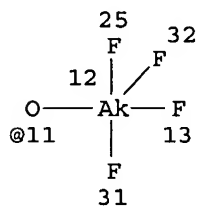   25
        F   32
   12 | /F
 O——————Ak————F
 @11 | 13
        F
        31
```

Structure 15:
```
        27
        F   34
   15 | /F
 S——————Ak————F
 @14 | 16
        F
        33
```

Structure 7:
```
        36
        F   38
        | /F
 @7 Ak————————F
        | 8
        F
        37
```

Structure 45:
```
 C————Cb————————G1
 45   5   6
```

Structure 19:
```
        26
        F   40
   19 | /F
 N——————Ak————F
 @18 | 20
        F
        39
```

Structure 47:
```
        48
        F   51
   47 | /F
 Si——————Ak————F
 @46 | 49
        F
        50
```

VAR G1=7/11/14/18/46
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY UNS AT    5
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   32

STEREO ATTRIBUTES: NONE
L89          16283 SEA FILE=REGISTRY SUB=L74 SSS FUL L88

L91              STR

```
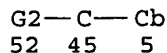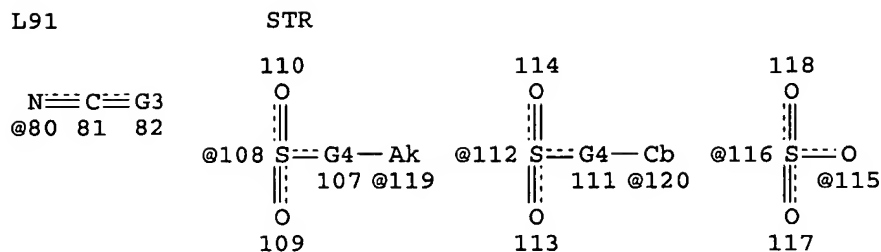              110           114           118
              O             O             O
 N===C===G3   :||           :||           :||
 @80 81 82
         @108 S---G4—Ak  @112 S---G4—Cb  @116 S---O
              :||  107 @119     :||  111 @120     :|| @115
              O             O             O
              109           113           117
```

```
 G2— C—— Cb
 52  45   5
```

VAR G2=X/119/108/120/112/116/115/80/SH/OH/NH2
VAR G3=O/S
REP G4=(0-1) O
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY UNS AT   5
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L93   7961 SEA FILE=REGISTRY SUB=L89 SSS FUL L91
L94   STR

```
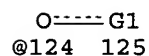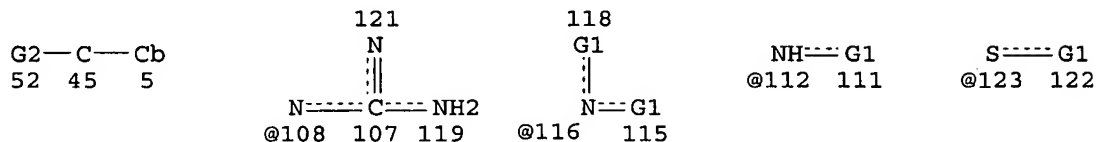               121         118
               N           G1
 G2— C—— Cb    :||         :|            NH===G1        S=====G1
 52  45   5
             N=====C====NH2   N===G1      @112  111    @123  122
             @108  107  119  @116   115
```

```
  O=====G1
 @124  125
```

VAR G1=AK/CY
VAR G2=108/116/112/123/124
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY UNS AT   5
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L96   4820 SEA FILE=REGISTRY SUB=L89 SSS FUL L94
L97   11342 SEA FILE=REGISTRY ABB=ON   PLU=ON   (L93 OR L96)

=> d his

      (FILE 'HOME' ENTERED AT 06:54:13 ON 12 APR 2005)
              SET COST OFF

ACCESSION NUMBER: 2002:127034   CAPLUS
DOCUMENT NUMBER: 137:32933
TITLE: Perfluoro-tagged benzyloxycarbonyl protecting group
                         and its application in fluorous biphasic systems
AUTHOR(S):   Schwinn, Dominik; Bannwarth, Willi
CORPORATE SOURCE: Institut fur Organische Chemie und Biochemie,
                         Universitat Freiburg, Freiburg, D-79104, Germany
SOURCE: Helvetica Chimica Acta (2002), 85(1), 255-264
                         CODEN: HCACAV; ISSN: 0018-019X
PUBLISHER: Verlag Helvetica Chimica Acta
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S):   CASREACT 137:32933

AB   The synthesis of a new perfluoro-tagged benzyloxycarbonyl protecting group
     is reported, as well as its application in the parallel protection of
     amines. Isolation of the protected amines was performed by simple
     liquid-liquid extraction between perfluorinated and organic solvents.
Deprotection
     was achieved by standard hydrogenolysis. The novel protecting group was also
     applied to cyclization protocols leading to quinazoline-2,4-diones. These
     products were isolated by simple extraction procedures.
IT   **436855-64-0P**
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
         (perfluoro-tagged benzyloxycarbonyl protecting group and its
         application in fluorous biphasic systems)
RN   436855-64-0 CAPLUS
CN   Carbonochloridic acid, [4-[tris(3,3,4,4,5,5,6,6,7,7,8,8,8-
     tridecafluorooctyl)silyl]phenyl]methyl ester (9CI)   (CA INDEX NAME)

REFERENCE COUNT: 33   THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT